Trauma, Memory, and Dissociation

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Chapter 8

Peritraumatic Dissociation and Posttraumatic Stress Disorder

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A Brief Overview of Empirical Studies of Trauma and Dissociation

The past decade has witnessed an intense resurgence of interest in the study of trauma and dissociation. In particular, the contributions of Janet, which had been largely eclipsed by developments within modern ego psychology, have been closely reexamined. Putnam (1989b) and van der Kolk and van der Hart (1989a, 1989b) have provided a contemporary reinterpretation of the contributions of Janet to the understanding of traumatic stress and dissociation.

Paralleling the resurgence of interest in theoretical studies of trauma and dissociation has been a proliferation of research studies addressing the relationship between trauma and general dissociative tendencies. Hilgard (1970) observed that students rated as highly hypnotizable reported more frequent histories of childhood punishment than their low-hypnotizability peers. She speculated that a heightened hypnotic capacity might confer protection against reexperiencing painful childhood memories. Chu and Dill (1990) reported that psychiatric patients with a history of childhood abuse reported higher levels of dissociative symptoms than those without histories of childhood trauma. Carlson and Rosser-Hogan (1991) reported a strong relationship between the amount of trauma in Cambodian refugees and the severity of both traumatic stress response and dissociative reactions. D. Spiegel and Cardena (1991) reviewed studies linking traumatic stress re-

sponse and general dissociative tendencies and reported the following: 1) retrospective studies support a strong relationship between early physical or sexual abuse and later dissociative phenomenology, 2) repeated and severe childhood abuse is more strongly associated with adult dissociative phenomena than are isolated instances of abuse, 3) dissociation at the time of childhood trauma may be a mechanism to cope with overwhelming traumatic events, and 4) adults with posttraumatic stress disorder (PTSD) have higher levels of hypnotizability than adult patients without PTSD.

Following on Hilgard's (1970) original observations concerning trauma and hypnotizability, Stutman and Bliss (1985) reported that a nonpatient population of veterans who had high levels of PTSD symptoms were more hypnotizable than their counterpart veterans who had low levels of PTSD symptoms. D. Spiegel et al. (1988) compared the hypnotizability of Vietnam veterans who had PTSD with patients who had affective disorders, generalized anxiety disorder, and schizophrenia and with a healthy control group. The group with PTSD were found to have hypnotizability scores that were higher than both the psychopathology and healthy control subjects. Hypnotizability scores in childhood have been shown to have stable traitlike characteristics, raising the possibility that traumatized individuals with higher levels of pretrauma exposure hypnotizability may be more vulnerable to developing PTSD. It is also possible that chronic PTSD results in changes in level of hypnotizability. Prospective studies are required to assess these possibilities.

Recent empirical studies have supported a strong relationship among trauma, dissociation, and personality disturbances. Herman et al. (1989) found a high prevalence of traumatic histories in patients with borderline personality disorder (BPD) who reported dissociative symptoms. Level of adult dissociative symptoms was better predicted by childhood traumatic history than even the borderline diagnostic status. Ogata et al. (1990), in a study of trauma and dissociation in BPD, found a higher frequency of childhood abuse in subjects with BPD than in depressed control subjects.

A profound association has been reported for childhood trauma

and multiple personality disorder (MPD). Kluft (1993) proposes a four-factor theory to explain the causes of MPD: 1) inherent capacity to dissociate, 2) traumatic life experiences that overwhelm the adaptational capacities of the child to use nondissociative defenses, 3) role of the environment in shaping the development of fragmented aspects of personality, and 4) inadequate availability of restorative experiences by protective others. Kluft (1993) proposes that the dissociative processes underlying MPD continue to serve a defensive function for individuals who have neither the external nor internal resources to cope with traumatic experiences. Coons and Milstein (1986) reported that 85% of 20 MPD patients had documented allegations of childhood abuse. Frischholz (1985) and Putnam et al. (1986) reported rates of severe childhood abuse as high as 90% in patients with MPD. The nature of the childhood trauma in many of these cases is notable for its severity, multiple aspects of physical and sexual abuse, threats to life, bizarre elements, and profound rupture of the sense of trust and safety when the perpetrator is a primary caregiver or has another type of close relationship with the child.

Acute Dissociative Responses to Trauma: Peritraumatic Dissociation

The aforementioned studies clearly demonstrate the association between traumatic life experience and general dissociative response. One fundamental aspect of the dissociative response to trauma concerns immediate dissociation at the time the traumatic event occurs. Traumatized patients frequently report alterations in the experience of time, place, and person, which leads to a sense of unreality as the event is occurring. Dissociation during trauma may take the form of altered sense of time, with time being experienced as slowed down or rapidly accelerated; experiences of depersonalization; profound feelings of unreality that the event is occurring or that the individual is the victim of the event; out-of-body experiences; confusion and disorientation; altered body image or feelings of disconnection from one's body; tunnel vision; altered pain per-

ception; and other experiences reflecting immediate dissociative responses to trauma. We have designated these acute dissociative responses to trauma as peritraumatic dissociation (Marmar et al. 1994; Marmar et al., 1996b; Weiss et al. 1995).

Although actual clinical reports of peritraumatic dissociation date back nearly a century, systematic investigation has occurred more recently. D. Spiegel (1993) reviews studies of detachment experiences at the time of trauma—one feature of peritraumatic dissociation. Noyes and Kletti (1977) surveyed 101 survivors of automobile accidents and physical assault. They reported that 72% experienced feelings of unreality and altered passage of time during the event, 57% experienced automatic movement, 52% experienced a sense of detachment from the event, 56% reported depersonalization, 34% reported a sense of detachment from the body, and 30% experienced derealization. Hillman (1981) reported on the experiences of 14 correctional officers held hostage during a violent prison riot. The hostage victims described employing dissociative perceptual alterations, including time distortion, to cope with the terror of their experience and psychogenic anesthesia to protect against overwhelming pain. Wilkinson (1983) investigated the psychological responses of survivors of the Hyatt Regency Hotel skywalk collapse in which 114 people died and 200 were injured. Survivors commonly reported depersonalization and derealization experiences at the time of the structural collapse. Siegel (1984) studied 31 kidnapping and terrorist hostages and found that during the hostage experience, 25.8% reported alterations in body imagery and sensations, depersonalization, and disorientation, and 12.9% reported out-of-body experiences.

Holen (1993), in a long-term prospective study of survivors of a North Sea oil-rig disaster, found that the level of reported dissociation during the trauma was a predictor of PTSD 6 months after the accident. Cardena and Spiegel (1993) reported on the responses of 100 graduate students from two different institutions in the Bay Area following the 1989 Loma Prieta earthquake. At the time the earthquake occurred, the participants reported experiencing derealization and depersonalization, time distortion, and alterations in cognition, memory, and somatic sensations. These results suggest

that among nonclinical populations, exposure to catastrophic stress may trigger transient dissociative phenomena. Koopman et al. (1994), in a study of 187 survivors of the 1991 Oakland Hills firestorm, found that dissociative symptoms at the time the firestorm was occurring more strongly predicted subsequent posttraumatic symptoms than did anxiety at the time of exposure and the subjective experience of loss of personal autonomy.

These independently replicated clinical and research findings point toward an important vulnerability role for peritraumatic dissociation as a risk factor for subsequent PTSD. These findings were at first surprising, given the prevailing clinical view that dissociative responses to trauma at the time catastrophic events occur conferred a sense of distance and safety to the victim. For example, an adult survivor of childhood incest reported that during the experience of being sexually abused she would leave her body and view the assault from above, with a feeling of detachment and compassion for the helpless little child who was being assaulted sexually. Although out-of-body and other peritraumatic dissociative responses at the time of traumatic stress exposure may defend against even more catastrophic states of helplessness and terror, dissociation at the time of trauma is one of the most important risk factors for the subsequent development of chronic PTSD. Causal relationships that may mediate between peritraumatic dissociation and the heightened risk for PTSD are discussed in the section on "Proposed Mechanisms for Peritraumatic Dissociation."

Peritraumatic Dissociative Experiences Questionnaire: A Proposed Measure of Acute Dissociative Responses to Trauma

Based on the important clinical and preliminary research observations on peritraumatic dissociation as a risk factor for chronic PTSD, we initiated a series of studies to develop a reliable and valid measure of peritraumatic dissociation. We designate this measure the Peritraumatic Dissociative Experiences Questionnaire (PDEQ; Marmar et al., 1996a) (see Appendix A, this chapter, following the

references). The first version of the PDEQ was a rater version consisting of nine items addressing dissociative experiences at the time the traumatic event was occurring: sense of time changing during the event; the event seeming unreal, as in a dream or play; feeling as if floating above the scene; moments of losing track or blanking out; finding the self acting on "automatic pilot," feeling disconnected from body or body distortion; not being aware of things that happened during the event that normally would have been noticed; confusion as to what was happening to the self and others; and not feeling pain associated with physical injury.

In a first study with the PDEQ, the relationship between peritraumatic dissociation and posttraumatic stress was studied in male Vietnam theater veterans (Marmar et al. 1994). Two hundred fifty-one male Vietnam theater veterans from the Clinical Examination Component of the National Vietnam Veterans Readjustment Study were investigated to determine the relationship of level of war zone stress exposure, retrospective reports of level of dissociation during the most disturbing combat trauma events, and level of general dissociative tendencies with PTSD case determination. Peritraumatic dissociation was assessed with a rater version of the PDEQ (see Appendix B, this chapter, following the references). Total score on the PDEQ was strongly associated with level of current posttraumatic stress symptoms, level of stress exposure, and level of general dissociative tendencies. Total PDEQ score was weakly associated with general psychopathology as assessed by the 10 clinical scales of the Minnesota Multiphasic Personality Inventory–2 (MMPI-2; Hathaway and McKinley 1989). Logistic regression analyses supported the incremental value of dissociation during trauma, over and above the contributions of level of war zone stress exposure and general dissociative tendencies, in accounting for PTSD case determination. These results provided preliminary support for the reliability and validity of the rater version of the PDEQ, and for a trauma-dissociation linkage hypothesis; the greater the dissociation during traumatic stress exposure, the greater the likelihood of meeting criteria for current PTSD.

In a first replication of this finding, the relationship between pe-

ritraumatic dissociation and symptomatic distress was determined in emergency services personnel exposed to traumatic critical incidents (Marmar et al., 1996b; Weiss et al., 1995). Three hundred sixty-seven emergency services personnel who had responded to either a large-scale mass disaster operation or smaller critical incident were interviewed, including emergency medical technicians (EMTs)/paramedics, fire fighters, police, and California Department of Transportation workers. One hundred fifty-four of the emergency medical service workers had been involved in the 1989 Interstate-880 Nimitz Freeway collapse that occurred during the Bay Area Loma Prieta earthquake. A variety of predictors of current symptomatic distress were measured, including level of critical incident exposure, psychological traits, locus of control, social support, general dissociative tendencies, and peritraumatic dissociation. Findings demonstrated that levels of current symptomatic distress were negatively associated with level of adjustment and positively associated with degree of exposure to the critical incident. After controlling for both exposure and adjustment, symptomatic distress could, for the most part, be predicted by social support, experience on the job, locus of control, general dissociative tendencies, and dissociative experiences at the time of the critical incident. The two dissociative variables, total score on the Dissociative Experiences Scale (DES; Bernstein and Putnam 1986) and total score on the PDEQ, were strongly predictive of symptomatic response, even after controlling for adjustment, exposure, and the three other predictors. This study added further support to the growing body of literature linking dissociative tendencies and experiences to distress as a result of exposure to traumatic stressors.

In a second replication, the relationship between peritraumatic dissociation and posttraumatic stress was investigated in female Vietnam theater veterans (Tichenor et al. 1994). Part of the rationale for this study was to assess the relationship of peritraumatic dissociation and posttraumatic stress in a female sample because the two earlier studies focused primarily on male participants. Seventy-seven female Vietnam theater veterans were interviewed by using the rater version of the PDEQ. Total score on the PDEQ

was found to be associated strongly with posttraumatic stress symptomatology, as measured by the Impact of Events Scale (Horowitz et al. 1979) and also positively associated with level of stress exposure and general dissociative tendencies, as measured by the DES (Bernstein and Putnam 1986). Scores on the PDEQ were not associated with general psychiatric symptomatology, as assessed by the 10 clinical scales of the MMPI-2 (Hathaway and McKinley 1989). As in the two earlier studies, PDEQ scores were predictive of posttraumatic stress symptoms above and beyond level of exposure and general dissociative tendencies. The findings replicate the earlier results for male Vietnam veterans and emergency services personnel, providing further support for the reliability and validity of the PDEQ and additional support for a linkage between trauma and dissociation.

Recently, we have investigated the relationship between peritraumatic dissociation and posttraumatic stress response in individuals exposed to the 1994 Los Angeles area Northridge earthquake (C. R. Marmar, et al., unpublished manuscript, June 1996). Sixty adult men and women who were working for a large private insurance company and lived close to the epicenter of the earthquake were evaluated. A self-report version of the PDEQ was used to assess dissociation at the time of earthquake exposure. Reports of dissociation at the time of the traumatic event were predictive of current posttraumatic stress response symptoms, after controlling for the level of exposure, replicating the findings for male and female veterans and emergency services personnel.

Across the four studies, the PDEQ has been demonstrated to be internally consistent, strongly associated with level of stress exposure, strongly associated with measures of traumatic stress response, strongly associated with a measure of general dissociative tendencies, and unassociated with measures of general psychopathology. These studies support the reliability and convergent, discriminant, and predictive validity of the PDEQ. Strengthening these findings are two independent studies by investigators in other PTSD research programs utilizing the PDEQ. Bremner et al. (1992), using selective items from the PDEQ as part of a measure of peritraumatic dissociation, reported a strong relationship between

peritraumatic dissociation and posttraumatic stress in an independent sample of Vietnam veterans. In the first longitudinal study with the PDEQ, Shalev et al. (1993) investigated the relationship between PDEQ ratings gathered in the first week following trauma exposure and posttraumatic stress symptomatology at 5 months. In this study of acute accident and terrorist attack victims admitted to an Israeli teaching hospital emergency room, PDEQ ratings at 1 week predicted stress symptomatology at 5 months, after controlling for exposure levels, Impact of Events Scale (Horowitz et al. 1979) scores, and social supports in the first week. This study is noteworthy because it is the first with the PDEQ in which ratings were gathered longitudinally. Retrospective ratings of peritraumatic dissociation months, years, or decades after traumatic events are subject to the bias that greater current distress may result in attributing greater dissociation at the time of exposure. The findings by Shalev et al. (1993) are therefore important in supporting the validity of retrospective ratings of peritraumatic dissociation.

Proposed Mechanisms for Peritraumatic Dissociation

The strong replicated findings relating peritraumatic dissociation with subsequent PTSD raises theoretically important questions concerning the mechanisms that underlie peritraumatic dissociation. Speculation concerning psychological factors underlying trauma-related dissociation date back to the early contributions of Breuer and Freud (1893–1895/1955). In their formulation, traumatic events are actively warded off from conscious experience but return in the disguised form of symptoms. The dissociated complexes have an underground life causing hysterical persons to "suffer mainly from reminiscences." Janet (1889) proposed that trauma-related dissociation occurred in individuals with a fundamental constitutional defect in psychological functioning, which he termed "la misère psychologique." Janet proposed that healthy individuals have sufficient psychological energy to bind together

their mental experiences, including cognitions, sensations, feelings, memories, and volition, into an integrated synthetic whole under the control of a single personal self with access to conscious experience (see Nemiah, Chapter 1, in this volume). From Janet's perspective, peritraumatic dissociation resulted in the coexistence within a single individual of two or more discrete dissociative streams of consciousness, each with rich mental contents, including feelings, memories, and bodily sensations, and each with access to conscious experience at different times.

Contemporary psychological studies of peritraumatic dissociation have focused on individual differences in the threshold for dissociation. Adult trauma patients who dissociate during their trauma may have experienced childhood or adolescent traumatic events that lower their threshold for dissociation. It is also possible that the threshold for peritraumatic dissociation or generalized dissociative vulnerability is a heritable trait, aggravated by early trauma exposure and correlated with hypnotizability, as suggested by D. Spiegel et al. (1988). Hypnosis has been conceptualized as a controlled and structured form of dissociation (Nemiah 1985; H. Spiegel and Spiegel 1978). Three critical elements to the hypnotic experience, compartmentalization of experience, suggestibility, and absorption, share much in common with the clinical phenomena of trauma-related dissociation. Further supporting the linkage between trauma-related dissociation and hypnotizability are the findings of Stutman and Bliss (1985), who found greater hypnotizability in nonpatient veterans who had high levels of PTSD symptoms when compared with nonpatient veterans who had low levels of PTSD symptoms. D. Spiegel et al. (1988) compared patients with affective disorders, generalized anxiety disorder, schizophrenia, and PTSD and found that the PTSD group had higher hypnotizability scores than those of the other groups and control subjects. In a recent investigation of clinical dissociation, hypnotizability, and trauma in sexually abused girls and control subjects, Putnam et al. (1995) reported a positive association between hypnotizability and clinical dissociation in the trauma subjects but not in the control subjects. This study suggests that in the absence of trauma, high hypnotizability alone is not a

sufficient condition for high levels of dissociation. Taken together, the studies on hypnotizability, trauma, and dissociation suggest that individuals who are constitutionally predisposed to being highly hypnotizable and who experienced trauma early in life are those with greatest vulnerability to subsequent dissociation at the time of exposure to traumatic events during adulthood. Further research is required to determine whether Janet's formulation of a genetically determined weakness in the capacity to bind and integrate psychological information may be related to a genetically determined increase in hypnotizability.

A second line of investigation concerning the underlying mechanisms for peritraumatic dissociation focuses on the neurobiology and neuropharmacology of anxiety. A study by Southwick et al. with yohimbine challenges (1993) suggests that in individuals with PTSD, flashbacks occur in the context of high-threat arousal states. It is also significant that patients with panic disorder frequently report dissociative reactions during anxiety attacks (Krystal et al. 1991). The effects of yohimbine in triggering flashbacks in PTSD patients and panic attacks in patients with panic disorder are mediated by a central catecholamine mechanism, as yohimbine serves as an α_2-adrenergic receptor antagonist, resulting in increased firing of locus ceruleus neurons. These observations suggest that the relationship between peritraumatic dissociation and PTSD may be mediated by high levels of anxiety during the trauma. The possibility that panic-level states of anxious arousal may trigger dissociation in some individuals is consistent with Moleman et al.'s report (1992) on the general relationship between high arousal and dissociation.

Marmar et al. (1996a) reported on individual differences in the level of peritraumatic dissociation during critical incident exposure in emergency services personnel. They found the following factors to be associated with greater levels of peritraumatic dissociation: higher levels of exposure during critical incident, greater subjective perceived threat at the time of critical incident, younger age, poorer general psychological adjustment, poorer identity formation, lower levels of ambition and prudence as defined by the Hogan Personality Inventory, greater external locus of control,

and greater use of escape-avoidance and emotional self-control coping. Taken together, these findings suggest that emergency services personnel with more vulnerable personality structures, less work experience, higher subjective levels of perceived threat and anxiety at the time of the incident, greater reliance on the external world for an internal sense of safety and security, and greater use of maladaptive coping strategies are more vulnerable to peritraumatic dissociation.

To disentangle cause-and-effect relations in trauma-dissociation linkage, future studies are required that prospectively examine dissociative tendencies in populations subsequently exposed to trauma. In addition, twin, cross-fostering, family history, and biological marker studies will be required to determine if peritraumatic and general dissociative tendencies are characteristics that are inherited or learned early in life. It remains to be demonstrated whether trauma determines greater vulnerability to dissociative responses, both generally and specifically, with respect to peritraumatic responses. It also will be of interest to determine what factors protect against peritraumatic dissociation and determine prospectively if resilience factors reduce the risk of developing subsequent PTSD.

Treatment of Trauma-Related Dissociation

To date, no controlled clinical trials have been reported of psychosocial or pharmacological intervention specifically targeting trauma-related dissociation. Kluft (1993), in an overview of clinical reports on treatment approaches for trauma-related dissociation, recommends individual supportive-expressive psychodynamic psychotherapy, augmented as needed with hypnosis or drug-facilitated interviews.

D. Spiegel (1993) proposes eight *C* principles for the psychotherapy of individuals experiencing acute traumatic dissociative reactions: 1) *confrontation* of the trauma to counter depersonalization and derealization; 2) *condensation* of the traumatic experience in the form of reconstructing the memory of the traumatic event, in-

cluding the technical use of hypnosis to relive the experiences and address psychogenic amnesia; 3) *confession* to address shame and guilt; 4) *consolation,* an appropriate expression of sympathy for the tragic circumstances that the patient has experienced; 5) *consciousness,* the bringing of traumatic memories and associated feelings into conscious awareness, without dissociation; 6) *concentration,* the use of hypnosis and self-hypnosis to help the patient gain conscious control over disturbing memories; 7) *control,* the further management of memories and associated affects through flexible experiencing and suppression of traumatic memories rather than dissociation; and 8) *congruence,* the integration of traumatic memories into preexisting self-concepts.

For the treatment of the most severe form of trauma-related dissociation, multiple personality disorder, Kluft (1993), drawing on the work of Braun (1986) and Putnam (1989a), outlines nine stages of a supportive-expressive psychodynamically informed treatment: 1) establishing a therapeutic alliance involving the creation of a safe atmosphere and a secure treatment frame to establish trust and realistic optimism; 2) preliminary interventions designed to gain access to the more readily reached dissociative aspects of personality, including establishing agreements with the alters against terminating treatment abruptly, self-harm, or other self-defeating behaviors; 3) history gathering and mapping of the nature of and relationships among alters to define the constellation of personalities; 4) metabolism of the trauma, which includes accessing and processing traumatic events related to the development of multiple personality disorder; 5) movements toward integration and resolution across the alters by facilitating cooperation, communication, and mutual awareness; 6) integration-resolution, involving a smooth collaboration among the alters; 7) learning new coping skills to manage stress without resorting to dissociation; 8) solidification of gains in working through the transference, including the management of anxiety related to conflicted sexual, aggressive, and dependency issues as they arise in the relationship with the therapist; and 9) follow-up to assess the stability of the outcome and to address new layers of personality that have not emerged in the prior treatment.

A number of investigators have advocated the use of hypnosis as an adjunct to the treatment of trauma-related dissociation. Van der Hart and Spiegel (1993) advocated the use of hypnosis as a way of creating a safe, calm mental state, in which the patient has control over traumatic memories, as an approach to the treatment of trauma-induced dissociative states presenting as hysterical psychosis.

Contemporary psychodynamic approaches to the treatment of trauma-related dissociation emphasize establishing the therapeutic alliance, reconstructing traumatic memories, working through of problematic weak and strong self-concepts activated by the trauma, and interpreting transference aimed at helping the patient process perceived threats in the relationship with the therapist without resorting to dissociation (Horowitz 1986; Marmar 1991; and Steinman 1994). Contemporary psychoanalytic theory emphasizes the complementarity of traumatic and structural models (Nemiah, Chapter 1, in this volume). The traumatic model addresses the fractionation of the ego into multiple dissociative elements, the pathological use of dissociation as a defense, and the abreaction and integration of dissociated traumatic memories. As the previously dissociative elements are brought into a more coherent self, Gabbard (1994) advocates the further use of traditional psychodynamic psychotherapy to solidify gains, mourn losses, and resolve conflicts through interpretation.

Future Research Directions for and Practical Clinical Applications of the Peritraumatic Dissociative Experiences Questionnaire

Future research will clarify the relationship among subjective threat appraisal, emotional distress at the time of trauma, peritraumatic dissociation, activation of central nervous system structures that regulate threat arousal, and psychophysiological arousal in the peripheral nervous system. Trauma patients can be challenged by reminders of their traumatic events and assessed for level of peritraumatic dissociation by their nonverbal behavior, including facial expressions, and changes in central nervous system activity deter-

mined with brain imaging procedures, event-related potential studies, and peripheral psychophysiological assessment.

Specific treatment interventions for peritraumatic dissociation, and dissociative responses that occur in the course of uncovering traumatic memories, will depend on rapid identification of those experiencing peritraumatic dissociation and advances in understanding the psychological and neurobiological factors underlying trauma-related dissociation. The PDEQ can be used to screen for acute dissociative responses at the time of exposure to traumatic stress. From a neuropharmacological point of view, R. Pitman (personal communication, November 1995), has advocated using medications to lower threat-arousal levels at the time of trauma. α_2-Adrenergic agonists, β-blockers, or other nonsedating antiarousal agents could be provided to emergency services personnel to aid in the modulation of arousal responses to life-threatening or gruesome exposure. Advances in critical incident stress debriefing procedures may lead to psychological interventions that lower immediate threat arousal and consequently reduce the likelihood of sustained peritraumatic dissociation. The PDEQ can be used to determine the effectiveness of novel pharmacological or psychotherapeutic interventions in reducing acute dissociative response to trauma.

The PDEQ additionally can be used as part of a standard assessment battery for individuals presenting for treatment with acute or chronic PTSD symptoms. Higher PDEQ scores in acute trauma patients support the need for active intervention. Higher PDEQ scores in those individuals presenting for treatment years to decades following traumatic exposure support the validity of subjective complaints of PTSD and also alert clinicians to the risks for patients' reentry into dissociative states during the uncovering phase of psychotherapy.

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Appendix A

Peritraumatic Dissociative Experiences Questionnaire—Self-Report Version

Instructions: Please complete the items below by circling the choice that best describes your experiences and reactions **during the _____ and immediately afterward.** If an item does not apply to your experience, please circle "Not at all true."

1. I had moments of losing track of what was going on—I "blanked out" or "spaced out" or in some way felt that I was not part of what was going on.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

2. I found that I was on "automatic pilot"—I ended up doing things that I later realized I hadn't actively decided to do.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

3. My sense of time changed—things seemed to be happening in slow motion.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

4. What was happening seemed unreal to me, like I was in a dream or watching a movie or play.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

5. I felt as though I were a spectator watching what was happening to me, as if I were floating above the scene or observing it as an outsider.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

6. There were moments when my sense of my own body seemed distorted or changed. I felt disconnected from my own body or that it was unusually large or small.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

7. I felt as though things that were actually happening to others were happening to me—like I was being trapped when I really wasn't.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

8. I was surprised to find out afterward that a lot of things had happened at the time that I was not aware of, especially things I ordinarily would have noticed.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

9. I felt confused—that is, there were moments when I had difficulty making sense of what was happening.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

10. I felt disoriented—that is, there were moments when I felt uncertain about where I was or what time it was.

1	2	3	4	5
Not at all true	Slightly true	Somewhat true	Very true	Extremely true

Appendix B

Peritraumatic Dissociative Experiences Questionnaire—Rater Version

Instructions: I'd like you to try to recall as best you can how you felt and what you experienced at the time (most upsetting event) happened, including how you felt the few minutes just before. Now, I'm going to ask you some specific questions about how you felt at that time. *Note:* DK = don't know; 01 = absent or false; 02 = subthreshold; 03 = threshold.

1. (At that time) Did you have moments of losing track of what was going on—that is, did you "blank out," "space out," or in some other way not feel that you were part of the experience?	DK	01	02	03
2. (At that time) Did you find yourself going on "automatic pilot"—that is, doing something that you later realized you had done but hadn't actively decided to do?	DK	01	02	03
3. (At that time) Did your sense of time change during the event—that is, did things seem unusually speeded up or slowed down?	DK	01	02	03
4. (At that time) Did what was happening seem unreal to you, as though you were in a dream or watching a movie or a play?	DK	01	02	03
5. (At that time) Were there moments when you felt as though you were a spectator watching what was happening to you—for example, did you feel as if you were floating above the scene or observing it as an outsider?	DK	01	02	03

6.	(At that time) Were there moments when your sense of your own body seemed distorted or changed—that is, did you feel yourself to be unusually large or small, or did you feel disconnected from your body?	DK	01	02	03
7.	(At that time) Did you get the feeling that something that was happening to someone else was happening to you? For example, if you saw someone being injured, did you feel as though you were the one being injured, even though that was not the case?	DK	01	02	03
8.	Were you surprised to find out after the event that a lot of things had happened at the time that you were not aware of, especially things that you felt you ordinarily would have noticed?	DK	01	02	03
9.	(At that time) Were there moments when you had difficulty making sense of what was happening?	DK	01	02	03
10.	(At that time) Did you feel disoriented—that is, were there moments when you felt uncertain about where you were or what time it was?	DK	01	02	03